

In the Claims:

This listing of claims replaces all prior versions.

1. (Currently amended) A method of setting a slice level in a binary signal in presence of noise, the binary signal having a first signal level during a first signal portion and a second signal level during a second signal portion, the method comprising the steps of:

setting the slice level initially at a level intermediate the first and the second (B) signal level,

providing a noise indication by measuring a first noise level during the first signal portion and by measuring a second noise level during the second signal portion wherein measuring the respective noise levels involves detecting peaks in the binary signal to indicate that the noise peaks in the respective first and second portions have on average different magnitudes, and

adjusting the slice level substantially uniformly during both the first and the second signal portions using the noise indication and as a function of an asymmetrical distribution in the first noise level and in the second noise level, ~~wherein~~

~~the step of providing a noise indication includes measuring a second noise level during the second signal portion, and~~

the step of adjusting the slice level includes adjusting the slice level substantially uniformly during both the first and the second signal portions.

2. (Previously presented) A method of setting a slice level in a binary signal in the presence of noise, the binary signal having a first signal level and a first noise level during a first signal portion and a second signal level and a second noise level during a second signal portion, the method comprising:

setting the slice level to a value about equal to half the difference between the magnitudes of the first and the second signal levels minus half the difference between the magnitudes of the first and the second noise levels.

3. (Currently amended). A method according to claim 1, wherein measuring the respective noise levels involves detecting peaks smaller than about 50 mV in at least one of the respective first and second portions of the binary signal.

4. (Currently amended) A device for setting a slice level in a binary signal, having a first signal portion and a second signal portion, in the presence of noise, comprising:

a first level shifter coupled between a pair of input terminals for receiving the binary signal and a pair of output terminals for supplying an adjusted binary signal,
a second level shifter coupled to the pair of input terminals,
a noise peak level detection unit that receives shifted input signals and produces a noise indication signal indicative of any difference in noise levels between the signal portions of the binary signal having different signal levels, the noise peak level detection unit coupled to the second level shifter, and

an adjustment connection for feeding the noise indication signal to both the first and the second level shifters to compensate for any difference in the noise levels,

wherein the first shifter subtracts the noise indication signal from the signal levels of the binary signal to produce the shifted input signals, and wherein the shifted input signals account for the noise peaks in the respective first and second portions having on average different magnitudes, and wherein the slice level is adjusted substantially uniformly during both the first and the second signal portions and is adjusted as a function of an asymmetrical distribution in the first noise level and in the second noise level.

5. (Previously presented) A device according to claim 4, wherein the noise peak level detection unit includes a first peak detector for detecting peaks in a first signal level of the binary signal and supplying a first peak detection signal, a second peak level detector for detecting peaks in a second signal level of the binary signal and supplying a second peak detection signal, and a differential amplifier for amplifying a difference between the first and the second peak detection signals to produce the noise indication signal.

6. (Previously presented) A device according to claim 4, wherein the adjustment connection includes a low-pass filter for filtering the noise indication signal.

7. (Previously presented) A device for setting a slice level in a binary signal in the presence of noise, comprising:

- a first level shifter coupled between a pair of input terminals for receiving the binary signal and a pair of output terminals for supplying an adjusted binary signal;

- a second level shifter coupled to the pair of input terminals;

- a noise peak level detection unit that receives shifted input signals and produces a noise indication signal indicative of any difference in noise levels between signal portions of the binary signal having different signal levels, the noise peak level detection unit coupled to the second level shifter; and

- an adjustment connection for feeding the noise indication signal to both the first and the second level shifters to compensate for any difference in the noise levels,

- wherein at least one of the first signal shifter and the second signal shifter include a series connection of a resistive element, a transistor and a current source, the bases of the transistors being coupled to receive the noise indication signal.

8. (Currently amended) A device according to claim 4 for setting a slice level in a binary signal in the presence of noise, comprising: a first level shifter coupled between a pair of input terminals for receiving the binary signal and a pair of output terminals for supplying an adjusted binary signal,

- a second level shifter coupled to the pair of input terminals,

- a noise peak level detection unit that receives shifted input signals and produces a noise indication signal indicative of any difference in noise levels between signal portions of the binary signal having different signal levels, the noise peak level detection unit coupled to the second level shifter, and

- an adjustment connection for feeding the noise indication signal to both the first and the second level shifters to compensate for any difference in the noise levels, wherein the first shifter subtracts the noise indication signal from the signal levels of the binary signal to produce the shifted input signals, wherein the noise peak level detection

unit includes a route mean square (RMS) level detector for detecting the RMS level of the binary signal, a first differential amplifier for amplifying a difference between a first level of the binary signal and the RMS level to produce a first level compensated noise signal that is supplied to a first peak detector, and a second differential amplifier for amplifying a difference between a second level of the binary signal and the RMS level to produce a second level compensated noise signal that is supplied to a second peak detector.

9. (Previously presented) A device according to claim 8, wherein the RMS level detector includes a series connection of a transistor, a resistor and a capacitor.

10. (Previously presented) A device for detecting a noise level in a binary signal, comprising:

a noise peak level detection unit for receiving input signals and producing a noise indication signal, the noise peak level detection unit including a route mean square (RMS) level detector for detecting the RMS level of the binary signal, a first differential amplifier for amplifying a difference between a first level of the binary signal and the RMS level to produce a first level compensated noise signal that is supplied to a first peak detector, and a second differential amplifier for amplifying a difference between a second level of the binary signal and the RMS level to produce a second level compensated noise signal that is supplied to a second peak detector.

11. (Previously presented) A device for setting a slice level in a binary signal in the presence of noise, the device comprising:

a first level shifter coupled between a pair of input terminals for receiving the binary signal and a pair of output terminals for supplying an adjusted binary signal,

a second level shifter coupled to the pair of input terminals,

a noise peak level detection unit that receives shifted input signals and produces a noise indication signal indicative of any difference in noise levels between signal portions of the binary signal having different signal levels, the noise peak level detection unit coupled to the second level shifter, and

an adjustment connection for feeding the noise indication signal to both the first and the second level shifters to compensate for any difference in the noise levels,

wherein the noise peak level detection unit includes a root mean square (RMS) level detector for detecting the RMS level of the binary signal, a first differential amplifier for amplifying a difference between a first level of the binary signal and the RMS level to produce a first level compensated noise signal that is supplied to a first peak detector, and a second differential amplifier for amplifying a difference between a second level of the binary signal and the RMS level to produce a second level compensated noise signal that is supplied to a second peak detector.

12. (Previously presented) A device according to claim 11, wherein the RMS level detector includes a series connection of a transistor, a resistor and a capacitor.

13. (Previously presented) A device according to claim 11, wherein at least one of the first signal shifter and the second signal shifter includes a series connection of a resistive element, a transistor and a current source, the bases of the transistors being coupled to receive the noise indication signal.

14. (Previously presented) A device according to claim 11, wherein the adjustment connection includes a low-pass filter for filtering the noise indication signal.